

REMARKS

The Office Action dated October 9, 2003, has been received and carefully considered. Reconsideration of the outstanding rejections in the present application is also respectfully requested based on the following remarks.

I. THE ANTICIPATION REJECTION OF CLAIMS 1-2, 13 AND 24

On page 2 of the Office Action, claims 1-2, 13 and 24 were rejected under pre-AIPA 35 U.S.C. § 102(e) as being anticipated by Huang (U.S. Patent No. 6,148,072). This rejection is hereby respectfully traversed.

Under 35 U.S.C. § 102, the Patent Office bears the burden of presenting at least a prima facie case of anticipation. In re Sun, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993) (unpublished). Anticipation requires that a prior art reference disclose, either expressly or under the principles of inherency, each and every element of the claimed invention. Id. "In addition, the prior art reference must be enabling." Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). That is, the prior art reference must sufficiently describe the claimed invention so as to have placed the public in possession of it. In re Donohue, 766

F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). "Such possession is effected if one of ordinary skill in the art could have combined the publication's description of the invention with his own knowledge to make the claimed invention." Id.

In rejecting claim 1, the Examiner alleges that "Huang discloses a communication device comprising: a first interface to a voice channel of a subscriber line for transmitting and receiving a voice component and a second interface to a data channel of the subscriber line for transmitting and receiving [a] video component [of a] video conferencing session, wherein the communication device is configured to establish a connection to at least the data channel based at least in part [on] a predetermined signal received over the and a second interface to a second channel for transmitting and receiving video data, wherein the communication device is configured to establish a connection to at least a second channel for video conferencing upon receiving a predetermined signal over the first channel." (Office Action, pp. 2-3)(citations omitted). The Examiner provides a similar line of reasoning in rejecting independent claim 24. (Office Action, p. 3).

Applicant concurs with the Examiner in that Huang discloses the communication of a voice component of a video conference over a first channel and a video component of the video conference over a second channel. However, as Applicant noted in Applicant's Response to the previous Office Action ("the previous Office Action") mailed May 16, 2003, Huang discloses transmitting the voice and video components ***separately over two (or more) separate telephone lines*** and fails to disclose the transmission of voice and video components ***over separate channels of the same subscriber line***.

In contrast to the teachings of Huang, claim 1 recites the limitations of "a first interface to ***a voice channel of a subscriber line*** for transmitting and receiving a voice component of a video conferencing session" and "a second interface to ***a data channel of the subscriber line*** for transmitting and receiving a video component of the video conferencing session." Thus, the voice channel and the data channel as recited in claim 1 are part of a same subscriber line, whereas Huang discloses only the use of separate channels on separate subscriber lines (e.g., telephone lines).

Applicant submitted a similar argument in the Applicant's Response to the previous Office Action. In responding to Applicant's arguments, the Examiner states:

Applicant argues that [Huang] does not disclose, teach or suggest the feature of transmitting and receiving the video and voice components via separate channels of a *single subscriber line*. Contrary to Applicant's interpretation of [the Huang] reference, [Huang] discloses using one channel for voice communication and when [the] users decide to setup a video call, another channel is set up [for] video communication [citing Huang, col. 2, lines 8-25]. Also [Huang] suggests the use of two telephone channels to maintain audio and video communications between the users [citing Huang, col. 4, lines 45-51, 61-65]. This clearly reads on applicant's claim 1. Since [Huang] teaches [the] use of *two channels of a subscriber line* for receiving audio and video component as explained above, rejection of independent claims 1 and 24 is maintained.

(Office Action, p. 8).

The portions of Huang relevant to Examiner's assertions, including those passages cited by Examiner follow:

The present invention involves a method and system **that use two or more telephone lines** to initiate video communication. **A user uses a first line to initiate an analog voice call** with another user. When one or both users desire to conduct a video call, the system uses a modem to **initiate a digital video (including image and voice) link on a second line**. During this initialization period, **the first line continues to carry the analog audio communication**. **After the video link on the second line is established, voice communication can be switched to the second line**. The system then **uses another modem to**

initiate a separate video link on the first line. During the setting up of the digital link on the first line, video communication (including both voice and images) continues to be carried on the second line. Consequently, there is no gap in audio communication. After the digital link on the first line is established, both the first and the second lines can be used to carry video communication. As a result, the total bandwidth of the system is increased.

(Huang, col. 2, lines 8-25) (emphasis added).

Moreover, Huang teaches that

[a] videophone that can be used to implement the method and system of the present invention has been disclosed in a PCT patent application PCT/US97/18526 (PCT publication number WO 98/17053) relating to an invention by the present inventor. This PCT application is incorporated herein by reference. ***This videophone is able to utilize two or more telephone lines for the purpose of expanding the bandwidth.*** One aspect of the present invention is to use this videophone to maintain continuous audio connection throughout the call. FIG. 2A shows a videophone communication system 620 that is used to implement this aspect of the present invention. . . . ***Note that videophone system 622 may contain more than two modems to further increase the bandwidth.***

A block diagram of the videophone system 650 used in the present invention is shown in FIG. 2B. . . . ***In order to use two telephone lines,*** videophone system 650 of FIG. 2B contains one additional modem 665. It should be understood that it is possible for videophone 650 to contain more than two modems. For example, FIG. 2B also shows a third modem 666.

FIG. 3 is a schematic diagram showing the method of the present invention. **The local and remote telephones first establish analog audio connection using line 1** (state 706) The caller and receiver then agree to seeing each other using the videophones For easy description, it is assumed that **modem 630 of videophone 622 is connected to line 1, and modem 644 is connected to line 2**. After a user indicates a desire to do video communication (by, e.g., press a button on videophone 622), **videophone modem 644 on line 2** initiates digital dialing (step 708). As pointed out above, initialization step 708 may takes [sic] about 30 seconds. At the conclusion of the initiation period of step 708, digital mode is established, and **digitally generated video (voice and images)** of the other videophone appears (state 710) on display 636 of videophone 622. **Up to this time, audio communication between the remote and local telephones remains active on line 1. However, shortly (or immediately) after the establishment of state 710, modem 630 of line 1 begins to call (digitally) the modem of the remote videophone, and analog audio communication on line 1 is cut off** (state 716). The telephone number can be retrieved from register 618. Modem 630 now undergoes an initiation period (step 718). **However, the users can still maintain audio communication because (digital) audio connection of line 2 has previously been established.** Consequently, the users can still talk to each other during this period. During step 718, the local and remote videophones **determine that two telephone lines are available for digital transmission. Consequently, a communication protocol is set up to use the bandwidth of these two lines. A dual-line videophone communication can begin** (state 720).

(Huang, col. 3, line 66 to col. 4, line 65)(emphasis added).

As the above-cited passages reveal, Huang contemplates the use of **two or more telephone lines** to facilitate video communications whereby **a first telephone line** may be used for voice communications while a digital link is set up on **a second telephone line** so that audio communications are not interrupted. See, e.g., Huang, col. 1, lines 47-58 and col. 2, lines 10-15. After the digital link is established on the **second telephone line**, the voice and image data is communicated via the digital link of the **second telephone line** and voice communications on the **first telephone line** are shut off. See, e.g., Huang, col. 4, lines 46-55). **A second digital link** then may be established on the **first telephone line** to increase the overall available bandwidth and the **digital voice and image data may be transmitted over both telephone lines**. See, e.g., Huang, col. 2, lines 17-25, col. 4., lines 57-65).

Based on the Examiner's response to Applicant's remarks, and in view of the relevant passages of Huang cited above, Applicant respectfully submits that Examiner's misapplication of Huang to claims 1 or 24 results from Examiner's failure to consider the limitation that both the voice channel and data channel are of the same subscriber line as recited in both claims 1 and 24. Applicant further

submits that Examiner's failure to consider this limitation may stem from Examiner's apparent misunderstanding of the ordinary meanings of the claim terms "subscriber line" and "channel."

One of ordinary skill in the art will recognize that the term "subscriber line" ordinarily refers to the physical medium by which two communications devices communicate. A subscriber line (also commonly known as a "loop") may include, for example, a digital subscriber line (DSL), telephone line/loop (e.g., copper lines or "twisted pair"), a coaxial cable line, etc. A channel, used in the present context, ordinarily refers to a portion of the transmission capabilities of a subscriber line used to communicate signals representing data. For example, in a frequency-division multiplex-based system, a channel may include a portion, or "band," (e.g., a voice channel comprising a frequency band from 0-4 kilohertz) of the applicable frequency bandwidth of the subscriber line. Similarly, in a time-division multiplex-based system, a channel may include a specific recurring timeslot (e.g., a channel comprising 50 milliseconds of transmission time every 250 milliseconds).

To illustrate, in DSL a channel ordinarily represents a subset of frequencies of the available frequency bandwidth of a subscriber line. For example, as disclosed in the article "How DSL Works" by Curt Franklin, the carrierless amplitude/phase (CAP) technique implemented by asynchronous digital subscriber line (ADSL) systems

operates by dividing the signals on a telephone line into three distinct bands [i.e., channels]: Voice conversations are carried in the 0 to 4 KHz (kilohertz) band, as they are in all POTS [Plain Old Telephone System] circuits. The upstream channel (from the user back to the server) is carried in a band between 25 and 160 KHz. The downstream channel (from the server to the user) begins at 240 KHz and goes up to a point that varies depending on a number of conditions . . . but has a maximum of about 1.5 MHz (megahertz). This system, with the three channels widely separated, minimizes the possibility of interference between the channels on one line, or between the signals on different lines.

("How DSL Works," p. 3). This reference, as well as additional general references describing the relationship between a channel and a subscriber line are provided in the supplemental Information Disclosure Statement submitted herewith.

Thus, for the ADSL system described above, the voice channel used to communicate analog voice includes the band of frequencies from 0 to 4 KHz and the digital channel used

to communicate digital data has both an upstream channel (25-160 KHz) and a downstream channel (240 KHz to 1.5 MHz).

Therefore, it may be understood that a channel and a subscriber line are not synonymous in that a channel represents a portion of the transmission capabilities of a subscriber line, e.g., a portion of the frequency bandwidth, whereas a subscriber line is the physical medium over which data is communicated via one or more channels.

Considering the teachings of Huang in view of the ordinary meanings of the claim terms "channel" and "subscriber line," it is submitted that Huang fails to disclose, teach or even suggest the limitations of transmitting and receiving the video and voice components **via separate channels of a single subscriber line** as recited in independent claims 1 and 24. Applicant therefore respectfully submits that independent claims 1 and 24 should be allowable as they each recite limitations not disclosed by the cited references either alone or in combination.

Claims 2, 4-6, 9 and 12-22 are dependent upon independent claim 1 and claims 25, 26 and 30 are dependent upon independent claim 24. Thus, since independent claims 1 and 24 should be allowable as discussed above, claims 2,

4-6, 9, 12-22, 25, 26 and 30 should also be allowable at least by virtue of their dependency on one of independent claims 1 or 24.

In view of the foregoing, it is respectfully submitted that the aforementioned anticipation rejection of claims 1, 2, 13 and 24 is not proper at this time, and the withdrawal of such rejection is respectfully requested.

II. THE OBVIOUSNESS REJECTION OF CLAIMS 4, 5, 26 AND 30

On page 4 of the Office Action, claims 4, 5, 26 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang (U.S. Patent No. 6,148,072) in view of Bremer et al. (Pub. No. US2001/0022836A1). This rejection is hereby respectfully traversed.

As stated in MPEP § 2143, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination

and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Also, as stated in MPEP § 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Further, as stated in MPEP § 2143.01, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). That is, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). Additionally, as stated in MPEP

§ 2141.02, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Finally, if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

The Examiner asserts that, although not disclosed by Huang, Bremer discloses an apparatus and method for simultaneous multiple telephone type services on a single telephone line and teaches data connections comprising at least one of an asymmetric digital subscriber line (ADSL), a symmetric digital subscriber line (SDSL), a high-data-rate digital subscriber line (HDSL), or a voice-over digital subscriber line (VoDSL). The Examiner therefore concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Huang's system to provide data connections comprising and ADSL, SDSL, HDSL, or VoDSL, as taught by Bremer.

Applicant respectfully submits that Huang, as discussed above, discloses the transmission and reception of the voice and video components of a video conferencing session **via multiple subscriber lines**. Bremer, while disclosing the transmission and reception of multiple telephone services over a single subscriber line, fails to disclose the transmission of the voice and video components of a video conferencing session via separate channels of the same subscriber line. Instead, with regard to video conferencing, Bremer discloses a "multimedia PC Internet video phone device 51, which captures *video and audio* and provides the *digitized information* to modem 50 for transmission to the destination user. The Internet video phone may use *either the PSTN or Internet or other land-type network for data communications*" (Bremer, pg. 3, para. 35) (emphasis added).

Thus, Bremer discloses the transmission and reception of voice content as digital data that is transmitted over a digital data channel along with the digitized video content, whereas independent claims 1 and 24, from which claims 4, 5, 26 and 30 respectively depend, teaches the transmission and reception of **a voice component via a voice channel separate from the data channel, but where both the**

voice channel and the data channel are on the same subscriber line. Accordingly, Bremer fails to disclose the feature of transmitting and receiving a voice component of a video conferencing session via a voice channel of a subscriber line and transmitting and receiving a video component via a separate data channel of the same subscriber line and, therefore, Bremer teaches away from the present invention as claimed.

Thus, because both Huang and Bremer fail to disclose the limitation of both the voice channel and the data channel on the same subscriber line and further because both Huang and Bremer teach away from this limitation, the combination of Bremer with Huang would fail to disclose each and every limitation recited in independent claims 1 and 24. Accordingly, it is respectfully submitted that the present invention as recited in claims 1 and 24 would not have been obvious over Huang in view of Bremer and, therefore, claims 4, 5, 26 and 30 should also be allowable at least by virtue of their dependency on one of independent claims 1 or 24.

In view of the foregoing, it is respectfully submitted that the aforementioned obviousness rejection of claims 4, 5, 26 and 30 is improper, and the withdrawal of such rejection is respectfully requested.

III. THE OBVIOUSNESS REJECTION OF CLAIMS 6 AND 9

On page 5 of the Office Action, claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang (U.S. Patent No. 6,148,072) in view of Mihara (U.S. Patent No. 6,323,892). This rejection is hereby respectfully traversed.

The Examiner asserts that although Huang does not explicitly disclose a CCD camera configured to capture the video component transmitted via the second channel and a LCD for displaying the video component received via the data channel, Mihara discloses the feature of a CCD camera and LCD integrated with a communication device and, therefore, it would have been obvious to one skilled in the art to combine Huang and Mihara to arrive at the present invention.

Independent claim 1, from which claims 6 and 9 depend, recites the limitation of transmitting and receiving a voice component of a video conferencing session via a voice channel and transmitting and receiving a video component of

the video conferencing session via a video channel, **where both the voice channel and the video channel are of the same subscriber line.** As noted above, this limitation is not disclosed, taught, or suggested by any of the cited references, including Huang and Mihara. Accordingly, because Huang, Mihara and the other cited references do not claim, disclose or even suggest, alone or in combination, the claimed features of independent claim 1, claims 6 and 9 should be allowable at least by virtue of its dependency on independent claim 1.

In view of the foregoing, it is respectfully submitted that the aforementioned obviousness rejection of claims 6 and 9 is not proper at this time, and the withdrawal of such rejection is respectfully requested.

IV. THE OBVIOUSNESS REJECTION OF CLAIM 12

On page 5 of the Office Action, claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang (U.S. Patent No. 6,148,072) in view of Mihara (U.S. Patent No. 6,323,892) and further in view of Haegebath (Japan Pub. No. 02000092463A). This rejection is hereby respectfully traversed.

The Examiner asserts that although Huang and Mihara do not disclose the feature of displaying advertisements, Haegebarth discloses the display of advertisements transmitted via a second channel when a first channel is not transmitting or receiving voice. The Examiner therefore concludes that it would have been obvious to one skilled in the art to combine Huang, Mihara and Haegebarth to arrive at the features recited by claim 12.

Independent claim 1, from which claim 12 depends, recites the limitation of transmitting and receiving a voice component of a video conferencing session via a voice channel and transmitting and receiving a video component of the video conferencing session via a video channel, **where both the voice channel and the video channel are of the same subscriber line.** As noted above, this limitation is not disclosed, taught, or suggested by any of the cited references, including Huang, Mihara and Haegebarth. Accordingly, because Huang, Mihara, Haegebarth and the other cited references do not claim, disclose or even suggest, alone or in combination, the claimed features of independent claim 1, claim 12 should be allowable at least by virtue of its dependency on independent claim 1.

In view of the foregoing, it is respectfully submitted that the aforementioned obviousness rejection of claim 12 is not proper at this time, and the withdrawal of such rejection is respectfully requested.

V. THE OBVIOUSNESS REJECTION OF CLAIMS 14-18 AND 25

On page 6 of the Office Action, claims 14-18 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang (U.S. Patent No. 6,148,072) in view of Bremer et al. (Pub. No. US2001/0022836A1) and further in view of Fan (U.S. Patent No. 6,519,250). This rejection is hereby respectfully traversed.

The Examiner asserts that it would have been obvious to one skilled in the art to combine Huang's system with the disclosure of Bremer and Fan to provide for fields in a sent packet such as a repeating sequence of characters for synchronization, header information, and an Internet Protocol address of a second communication device, as respectively recited by claims 14-17 and 25. Regarding claim 18, the Examiner asserts that Huang teaches an analog modem to receive a tone burst.

Independent claims 1 and 24, from which claims 14-18 and 25 respectively depend, recites the feature of transmitting and receiving a voice component of a video

conferencing session via a voice channel and transmitting and receiving a video component via a data channel, where the voice **where both the voice channel and the video channel are of the same subscriber line.** As noted above, this feature is not disclosed by any of the cited references, including Huang, Bremer and Fan. Accordingly, because Huang, Bremer, Fan and the other cited references do not claim, disclose or even suggest, alone or in combination, the claimed features of independent claims 1 and 24, claims 14-18 and 25 should be allowable at least by virtue of its dependency on one of independent claims 1 and 24.

In view of the foregoing, it is respectfully submitted that the aforementioned obviousness rejection of claims 14-18 and 25 is not proper at this time, and the withdrawal of such rejection is respectfully requested.

VI. OBJECTION TO CLAIMS 19-22

Applicant notes with appreciation the indication on page 8 of the Office Action that claims 19-22 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicant respectfully submits that, as noted above, the cited references do not claim, disclose or

even suggest, alone or in combination, the claimed features of independent claim 1 from which claims 19-22 depend. Accordingly, claims 19-22 should be allowable at least by virtue of their dependency on independent claim 1. Acknowledgment of same is respectfully requested.

VII. ALLOWANCE OF CLAIMS 27-29

Applicant notes with appreciation the indication on page 8 of the Office Action that claims 27-29 are allowed.

VIII. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

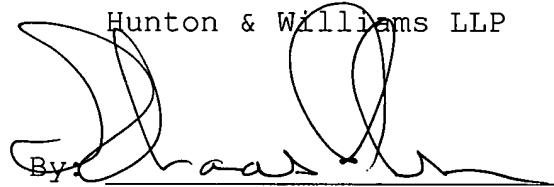
To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Patent Application
Attorney Docket: 56130.000062
Client Reference No.: 12812RGUS01U

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Respectfully submitted,

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